The Third International Conference on Innovations in Computing Research (ICR'24)
Athens, Greece, August 12-14, 2024

Conference Program

Monday, August 12, 2024

07.30-08.00   Conference Registration (Conference Registration Desk)

08.00-08.15   WELCOME
Professor Hiroaki Kikuchi, Meiji University, Japan
Conference Chair

ICR24-Session-1-I   **Data Science**
08.20-10.20, August 12, 2024 (In-person)

Session Chair: **Robert Polding**
IE University, Spain

08.20-08.40   Extracting Official Agencies' Communication Patterns During the
COVID-19 Pandemic: A Text Mining Approach
Shady Salama[1], Akira Matsui[2], and Takashi Kamihigashi[1]
[1]Kobe University, Japan
[2]Yokohama National University, Japan

08.40-09.00   The Hybrid Model Combination of Deep Learning Techniques, CNN-
LSTM, BERT, Feature Selection, and Stop Words to Prevent Fake News
Justin Hui San Zhao and Thair Al-Dala'in
Western Sydney University, Australia

09.00-09.20   The Detection of Misstated Financial Reports Using XBRL Mining and
Intelligible MLP
Duarte Trigueiros
University Institute of Lisbon, Portugal

09.20-09.40   University Student Enrollment Prediction: A Machine Learning
Framework
Ghazi Al-Naymat and Mohammed Azmi Al-Betar
Ajman University, UAE

09.40-10.00   *v*Throt: Fine-Grained, Virtual I/O Resource Redistribution Scheme
Taehoon Kim[1], Jaechun No[1], and **Sung-soon Park[2]**
[1]Sejong University, Korea
[2]Anyang University and Gluesys Co. LTD, Korea

10.00-10.20	Prediction of Automotive Vehicles Engine Health Using MLP and LR
	Hussein Jammal, [Joseph] El Houssainy, Farah Srour, Mostafa Tormos, Riad Sakr, and **Roger Achkar**
	American University of Science and Technology, Lebanon

| 10.20-10.40 | **BREAK** |

ICR24-Session-2-IR Computer and Network Security
10.40-12.20, August 12, 2024 (In-Person/Remote)

Session Chair: **Haneen Heyasat**
South Australian Institute of Business & Technology, Australia

10.40-11.00	Towards Developing Generative Adversarial Networks based Robust Intrusion Detection Systems for Imbalanced Dataset using Hadoop-PySpark
	Md Abdur Rahman and Hossain Shahrier
	University of West Florida, United States

11.00-11.20	Enhancing Cybersecurity through Blockchain: An Analysis of Solutions for Threats and Vulnerabilities – An Agency Theory Perspective
	Haneen Heyasat[1] and Baber Bhatti[2]
	[1]South Australian Institute of Business & Technology (SAIBT), Australia
	[2]University of South Australia, Australia

11.20-11.40	Developing a Decentralized Blockchain Framework with Hyperledger and NFTs for Secure and Transparent Patient Health Records
	Huwida E. Said[1], Nedaa B. Al Barghuthi[2], Sulafa M. Badi[3], Faiza Hashim[4], and Shini Girija[1]
	[1]Zayed University, Dubai, UAE
	[2]Higher Colleges of Technology, Sharjah, UAE
	[3]The British University in Dubai, Dubai, UAE
	[4]United Arab Emirates University, Al Ain, UAE

11.40-12.00	A Novel Approach Using OCR Technology to Combat Deceptive Click Attacks
	Yu-Sheng Lian[1], **Fu-Hau Hsu**[1], Yan-Ling Hwang[2], Jian-Xin Chen[1], Jian-Hong Huang[1], Hao-Jyun Wang[1], and Min-Hao Wu[3]
	[1]National Central University, Taiwan
	[2]Chung Shan Medical University, Taiwan
	[3]Xiamen City University, China

12.00-12.20	Investigating and Managing Security Threats in Hospitals: Case Study
	Mahmoud Bakkar
	Abu Dhabi University, United Arab Emirates

12.20-01.20	**LUNCH BREAK (ON YOUR OWN)**

ICR24-Session-3-I **Computer Science and Computer Engineering Education**
01.20-03.00, August 12, 2024, (In-Person)

Session Chair: **Roger Achkar**
American University of Science and Technology, Lebanon

01.20-01.40 Sensitivity of Automated SQL Grading in Computer Science Courses
Benard Wanjiru, Patrick van Bommel, and Djoerd Hiemstra
Radboud University, The Netherlands

01.40-02.00 Empowering Young Students with Disabilities through AR-enabled
Hydroponic Agriculture.
Mario Covarrubias[1], Emma Mencaci[2], Sabrina Roma[2], Domenico
Bodega[3], and Alessandra Calcagno[1]
[1]Politecnico di Milano, Italy
[2]ASPOCOLLEGE, Italy
[3]Università Cattolica del Sacro Cuore, Italy

02.00-02.20 Analyzing the Impact of a Deep Learning Attention Compensation System on Data
Labelling Productivity in Individuals with Developmental Disabilities
Yong-Man Ha[1] and **Jong-Wook Jang** [2]
[1]Fields Corporation, Korea
[2]Dong-Eui University, Republic of Korea

02.20-02.40 A Comprehensive Service Blueprint for Enhancing Coopetition Networks
Agostinho da Silva [1,2,3,4] and Antonio J. Marques Cardoso[1]
[1]University of Beira Interior, Portugal
[2]ISG – Business & Economics School, Portugal
[3]CEFAGE-UE, Center for Advanced Studies in Management and
Economics, Portugal
[4]MARE, Marine and Environnemental Sciences Centre, Portugal

02.40-03.00 Curriculum Reform with Stakeholder Participation for Quality Control
Vasso Stylianou[1], Florent Domenach[2], Andreas Savva[1], and George
Portides[1]
[1]University of Nicosia, Nicosia, Cyprus
[2]Akita International University, Japan

03.00-03.20 **BREAK**

Session Chair: **Huwida Said**
Zayed University, UAE

03.20-03.40   Towards Automated Policy Predictions via Structured Attribute-Based Access Control
Anna Bamberger and Maribel Fernández
King's College London, UK

03.40-04.00   An Efficient and Reliable scRNA-seq Data Imputation Method Using Variational Autoencoders
Widad Alyassine[1], Anuradha Samkham Raju[2], Ali Braytee[3], **Ali Anaissi[1,3]**, and Mohamad Naji[3]
[1]The University of Sydney, Australia
[2]Victorian Institute of Technology, Australia
[3]The University of Technology Sydney, Australia

04.00-04.20   Early Prediction of Sepsis Utilizing Multi-Branches Multi-Tasks Hybrid Deep Learning Model
Pei-Yi Hao
National Kaohsiung University of Science and Technology, Taiwan

04.20-04.40   A Comparative Analysis of Random Forest and Support Vector Machine Techniques on the UNSW-NB15 Dataset
Madlyn Manneh[1], Patrick Ansah[1], **Sumit Kumar Tetarave[1]**, Manoj Ranjan Mishra[1], and Ezhil Kalaimannan[2]
[1]KIIT University, India
[2]University of West Florida, USA

04.40-05.00   Medical Image Character Recognition Using Attention-Based Siamese Networks for Visually Similar Characters with Low Resolution
Efosa Osagie, Wei Ji, and Na Helian
University of Hertfordshire, UK

05.00-05.20   Toward Smart Bicycle Safety: Leveraging Machine Learning Models and Optimal Lighting Solutions
Mustafa Abdulfattah Habeeb[1], Yahya Layth Khaleel[1], and A.S. Albahri[2]
[1]Tikrit University, Iraq
[2]Imam Ja'afar Al-Sadiq University, Iraq

05.20-05.40   Comparing Convolutional Neural Networks and Transformers in a Points-of-Interest Experiment
Paraskevas Messios[1], Ioanna Dionysiou[2], and Harald Gjermundrød[2]
[1]European University Cyprus, Cyprus

[2]University of Nicosia, Cyprus

05.40-06.40	Keynote Speech: Self-Organization as a Key Principle to Adaptive Intelligence

Professor Birgitta Dresp-Langley
UMR 7357 CNRS-Strasbourg University, France

07.30-09.30	**CONFERENCE DINNER**